Case No. @CSD-1464 (51331)

COMMISSIONER FOR PATENTS P.O. BOX 1450 ALEXANDRIA, VA 22313-1450



In re Application of:

CAIN ET AL.

Serial No.:

10/658,022

Filed:

September 9, 2003

For:

MOBILE AD-HOC NETWORK (MANET) WITH QUALITY-OF-SERVICE (QOS) PROTOCOL HIERARCHY AND RELATED

METHODS

Sir:

Transmitted herewith is an INFORMATION DISCLOSURE STATEMENT in the above-identified application.

- 1. [X] This IDS is submitted under 37 C.F.R. § 1.97. No fee is required.
- 2. [] This IDS is submitted under 37 C.F.R. § 1.97(c). Enclosed is a check in the amount of \$ 180.00.
- 3. [] This IDS is submitted under 37 C.F.R. § 1.97(c) and (e). No fee is required.
- 4. [] This IDS is submitted under 37 C.F.R. § 1.97(d) and (e). Enclosed is a check in the amount of \$130.00 to cover the petition fee.
- 5. **[X]** The Commissioner is hereby authorized to charge or credit any discrepancies in fee amounts to Deposit Account No. 08-0870.
- 6. [X] Please associate this application with Customer No. 27975.

27975

PATENT TRADEMARK OFFICE

Date: September 24, 2003

JOHN F. WOODSON, I

Reg. No. 45,236

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: CAIN ET AL.

Serial No. 10/658,022

iling Date: **September 9, 2003**

For: MOBILE AD-HOC NETWORK

(MANET) WITH QUALITY-OF-SERVICE)

(QOS) PROTOCOL HIERARCHY AND

RELATED METHODS

CITATION UNDER 37 CFR §1.97

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Attached is Form PTO-1449 listing several references for consideration in the examination of the above-identified application. A copy of each reference is also enclosed. It is requested that these references be considered by the Examiner and officially made of record in accordance with the provisions of 37 CFR §1.97 and Section 609 of the MPEP.

Respectfully submitted,

J∳HN F. WOODSON, II

Reg. No. 45,236

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Attorney for Applicants

In re Patent Application of:

CAIN ET AL.

Serial No. 10/658,022

Filing Date: September 9, 2003

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being posited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this Alexandria day of September, 2003.

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TATEMENT

Atty Docket: Serial No.: Applicant: Filing Date: Group:

GCSD-1464 (51331) 10/658,022

Cain et al.

September 9, 2003

ENT & TRADEM	U.S. PATENT DOCUMENTS

Examiner Initials		Document Number	Date	Name	Class	Sub Class	Filing Date
	AA	5,412,654	5/2/95	Perkins	370	94.1	
	AB	5,581,703	12/3/96	Baugher et al.	395	200.6	
	AC	5,884,174	3/16/99	Nagarajan et al.	455	436	
	AD	5,987,011	11/16/99	Toh	370	331	
	AE	6,189,033	2/13/01	Jin et al.	709	255	
	AF	6,216,006	4/10/01	Scholefield et al.	455	450	
	AG	6,304,556	10/16/01	Haas	370	254	
	АН	2001/0033556	10/25/01	Krishnamurthy et al.	370	329	1/18/01
	Al	6,335,927	1/1/02	Elliot et al.	370	352	
	AJ	2002/0018448	2/14/02	Amis et al.	370	255	4/24/01
	AK	6,349,091	2/19/02	Li	370	238	
	AL	6,377,548	4/23/02	Chuah	370	233	
	AM	6,385,174	5/7/02	Li	370	252	
	AN	6,396,814	5/28/02	Iwamura et al.	370	256	
	AO	2002/0082035	6/27/02	Aihara et al.	455	518	7/6/01
	AP	2002/0101822	8/1/02	Ayyagari et al.	370	235	11/30/00
	AQ	2002/0103893	8/1/02	Frelechoux et al.	709	223	1/29/02
	AR	6,449,558	9/10/02	Bowman-Amuah	703	21	
	AS	6,456,599	9/24/02	Elliott	370	254	
	AT	6,473,467	10/29/02	Wallace et al.	375	267	
	AU	H2051	11/5/02	Zhu et al.	370	395.21	
	AV	6,493,759	12/10/02	Passman et al.	709	227	
	AW	6,501,741	12/31/02	Mikkonen et al.	370	310	
	AX	6,515,972	2/4/03	Gage et al.	370	328	
	AY	6,522,628	2/18/03	Patel et al.	370	230.1	
	AZ	6,535,498	3/18/03	Larsson et al.	370	338	

INFORMATION DISCLOSURE

Atty Docket: Serial No.: Applicant: Filing Date: Group:

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Cain et al.

September 9, 2003

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U.S. PATENT DOCUMENTS								
Examiner Initials		Document Number	Date	Name	Class	Sub Class	Filing Date	
	ВА	2003/0053424	3/20/03	Krishnamurthy et al.	370	316	8/7/01	
	ВВ	2003/0067941	4/10/03	Fall	370	468	10/9/01	
		FC	REIGN PA	ATENT DOCUMENTS			<u> </u>	
		Document Number	Date	Country	Class	Sub Class	Translation	
	вс							
	(OTHER ART (Includ	ing Autho	r, Title, Date, Pertinent	Pages, et	c.)		
	BD	Zhu, <i>Medium Acces</i> PhD thesis, Departe MD, 2001	Zhu, Medium Access Control and Quality-of-Service Routing for Mobile Ad Hoc Networks, PhD thesis, Department of Computer Engineering, University of Maryland, College Park, MD, 2001					
	BE	Mirhakkak et al., Dynamic Quality-of-Service for Mobile Ad Hoc Networks, MITRE Corp., 2000						
	BF	Das et al., Routing in Ad-Hoc Networks Using Minimum Connected Dominating Sets, IEEE Int. Conf. On Commun. (ICC '97), 1997						
	BG	Das et al., Routing in Ad-Hoc Networks Using a Spine, IEEE Int. Conf. On Computer Commun. and Networks (IC3N '97), 1997						
	вн	Raghunathan et al., <i>Gateway Routing: A Cluster Based Mechanism for Recovery from Mobile Host Partitioning in Cellular Networks</i> , Proceedings of the 3 rd IEEE Symposium on Application-Specific Systems and Software Engineering Technology (ASSET'00), 2000						
	ВІ	Chen et al., Clustering and Routing in Mobile Wireless Networks, Nortel Networks and Computer Science, SITE, University of Ottawa, (no date available)						
	BJ	Krishna et al., A Cluster Based Approach for Routing in Dynamic Networks, ACM Computer Communications Review, 27(2), April 1997						
	вк	Chiang, Routing in Clustered Multihop, Mobile Wireless Networks with Fading Channel, Proceedings of IEEE SICON '97, April 1997, pp. 36-45						
	BL	Gerla, Clustering and Routing in Large Ad Hoc Wireless Nets, Computer Science Department, University of California, Los Angeles, Final Report 1998-99 for MICRO project 98-044						
	ВМ	Van Dyck et al., Distributed Sensor Processing Over an Ad-Hoc Wireless Network: Simulation Framework And Performance Criteria, Proceedings IEEE Milcom, Oct. 2001						
	BN	Lin et al., Adaptive Areas in Communi	Lin et al., Adaptive Clustering for Mobile Wireless Networks, IEEE Journal on Selected Areas in Communications, 15(7), September 1997					

INFORMATION	DISCLOSURE
STATE	MENT

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6		Group:					
7 6 7015 H		OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)					
AT & TRACE	во	AcDonald, PhD. Dissertation Proposal: A Mobility-Based Framework for Adaptive Dynamic Cluster-Based Hybrid Routing in Wireless Ad-Hoc Networks, University of Pittsburgh, 1999					
	ВР	Royer et al., A Review of Current Routing Protocols for Ad Hoc Mobile Wireless Networks, IEEE Personal Communications, April 1999, pp. 46-55					
	BQ	Corson et al., A Reservation-Based Multicast (RBM) Routing Protocol for Mobile Networks: Initial Route Constructions Phase, ACM/l. 1, No. 4, 1995, pp. 1-39					
	BR	Xiao et al., A Flexible Quality of Service Model for Mobile Ad Hoc Networks, IEEE VTC2000-spring, Tokyo, Japan, May 2000					
	BS	Wu et al., QoS Support in Mobile Ad Hoc Networks, Computing Science Department, University of Alberta, (no date available)					
	ВТ	Corson et al., Mobile Ad Hoc Networking (MANET): Routing Protocol Performance Issues and Evaluation Considerations, Network Working Group, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, January 1999					
	BU	Haas et al., The Bordercast Resolution Protocol (BRP) for Ad Hoc Networks, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, June 2001					
	BV	Haas et al., The Interzone Routing Protocol (IERP) for Ad Hoc Networks, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, June 2001					
	BW	Haas et al., The Intrazone Routing Protocol (IERP) for Ad Hoc Networks, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, June 2001					
	вх	Clausen et al., Optimized Link State Routing Protocol, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, October 31, 2001					
	BY	Perkins et al., Quality of Service in Ad hoc On-Demand Distance Vector Routing, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, July 2000					
	BZ	Park et al., Temporally-Ordered Routing Algorithm (TORA) Versoin 1 Functional Specification, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, July 20, 2001					
	CA	Ogier et al., <i>Topology Broadcast Based on Reserve-Path Forwarding (TBRPF)</i> , Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, January 10, 2002					
	СВ	Gerla et al., Landmark Routing Protocol (LANMAR) for Large Scale Ad Hoc Networks, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, December 17, 2001					
	СС	Hu et al., Flow State in the Dynamic Socurce Routing Protocol for Mobile Ad Hoc Networks, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, February 23, 2001					
	CD	Gerla et al., Fisheye State Routing Protocol (FSR) for Ad Hoc Networks, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, December 17, 2001					

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Atty Docket: Serial No.: GCSD-1464 (51331) 10/658,022

Applicant: Filing Date: Cain et al. September 9, 2003

Group:

E JC10	_	OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)			
S S S S S S S S S S S S S S S S S S S	CE	Johnson et al., <i>The Dynamic Source Routing Protocol for Mobile Ad Hoc Networks (DSR)</i> , Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, November 21, 2001			
PATENT & THAT	CF	Perkins et al., Ad hoc On-Demand Distance Vector (ADOV) Routing, Internet Engineering Task Force (IETF) MANET Working Group, Internet Draft, November 9, 2001			
	CG	Chakrabarti et al., "QoS Issues in Ad Hoc Wireless Networks", , IEEE Communications Magazine, (2/01), pp. 142-148			
	СН	Chen, "Routing Support for Providing Guaranteed End-to-End Quality-of-Service," Ph.D. thesis, Univ. of Illinois at Urbana-Champaign, http://cairo.cs.uiuc.edu/papers/Scthesis.ps, 1999			
	СІ	Jin et al., A Hierarchical Routing Protocol for Large Scale Ad Hoc Network, IEEE 1999, pages 379-385.			
	CJ	Gerla et al., Multicluster, Mobile, Multimedia Radio Network, Wireless Networks I, 1995, pages 255-265.			

EXAMINER:	DATE CONSIDERED:

***EXAMINER**: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.